



## Testimony

Before the Subcommittee on Oversight and  
Investigations, Committee on Energy and Commerce,  
House of Representatives

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# WASTE CLEANUP

## Implications of Compliance Agreements on DOE's Cleanup Program

Statement of (Ms.) Gary L. Jones,  
Director, Natural Resources and Environment



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Accountability \* Integrity \* Reliability

## Report Documentation Page

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Mr. Chairman:

We are here today to discuss compliance agreements that affect the Department of Energy's (DOE) cleanup program. Compliance agreements are legally enforceable documents between DOE and its regulators, specifying cleanup activities and milestones that DOE has agreed to achieve.<sup>1</sup> DOE's Office of Environmental Management (EM) is responsible for much of the actual cleanup activity, which is carried out primarily under two federal laws—the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA), and the Resource Conservation and Recovery Act of 1976, as amended (RCRA). Besides DOE, other parties to the agreements include the Environmental Protection Agency (EPA) and state agencies that have jurisdiction over environmental and health issues. Over the years, these compliance agreements have been used to implement much of the cleanup activity at DOE sites. In February 2002, the Secretary of Energy proposed a new initiative to refocus DOE's cleanup program by accelerating risk reduction at the sites. Questions have been raised about the relationship of this initiative to the schedules outlined in compliance agreements.

My testimony is based on our report to you on the status and implications of DOE's compliance agreements, which you are releasing today.<sup>2</sup> My testimony addresses five topics: (1) the types of compliance agreements, (2) DOE's progress in achieving the milestones contained in the agreements, (3) whether the cost to comply with the agreements is reflected in DOE's annual budget request, (4) whether the agreements allow DOE to prioritize work across sites according to relative risk, and (5) possible implications the agreements have on DOE's efforts to improve the cleanup program.

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<sup>1</sup> The term "compliance agreement" includes, but is not limited to, Federal Facility Agreements, Interagency Agreements, settlement agreements, consent orders, and compliance orders. It does not include federal and state environmental requirements that are not implemented by compliance agreements. Also, some cleanup work is required in certain of DOE's RCRA permits that authorize waste treatment operations. We did not include RCRA permits in our study because (1) the great majority of DOE's cleanup work is covered by compliance agreements and (2) cleanup work required by RCRA permits is generally also included under the compliance agreements at those sites. Also in this testimony, we use the term "regulators" to mean those federal and state agencies that are parties to DOE's compliance agreements.

<sup>2</sup> U.S. General Accounting Office, *Waste Cleanup: Status and Implications of DOE's Compliance Agreements*, GAO-02-567 (Washington, D.C.: May 30, 2002).

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## Summary

The 70 compliance agreements at DOE sites vary greatly but can be divided into three main types. These are: (1) agreements specifically required by CERCLA to address cleanup of federal sites on EPA's national priorities list of the nation's worst hazardous waste sites or by RCRA to address the management of mixed radioactive and hazardous waste at DOE facilities, (2) court-ordered agreements resulting from lawsuits initiated primarily by states, and (3) other agreements, including state administrative orders enforcing state hazardous waste management laws. Collectively, as of December 2001, the 70 agreements had 7,186 schedule milestones.<sup>3</sup>

DOE reported completing about 80 percent of these milestones by the time originally scheduled in the agreements. Many of the milestones completed either have been administrative, such as issuing a report, or have involved completing some step in the cleanup process, such as conducting certain tests. Although such process steps may be important in arriving at eventual cleanup, for several reasons the number of milestones completed is not a good measure of cleanup progress. For example, many of the milestones require completing an administrative requirement that may not indicate what, if any, actual cleanup work was performed. When DOE misses a milestone, regulators have several options, including negotiating a new date or assessing a penalty. Thus far, regulators have generally been willing to negotiate extensions when DOE found itself unable to complete a milestone on time, approving about 93 percent of DOE's requests for milestone changes. However, DOE has paid about \$1.8 million in monetary penalties and about \$4 million in other penalties (such as added work requirements) because regulators took enforcement actions for missed milestones.

The cost of complying with these agreements is not specifically identified in the DOE budget submitted to the Congress. Individual DOE sites develop annual compliance cost estimates as part of their budget requests. However, DOE headquarters officials adjust those individual site estimates to reflect national priorities and to reconcile various competing demands. Consequently, the final budget request does not identify what portion of the request is intended to address compliance requirements. DOE is not

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<sup>3</sup> Five of the agreements containing 130 milestones were completed and are no longer active. For the remaining agreements, the number of milestones will increase over time because some of the agreements provide for setting milestone dates periodically over the life of the agreements rather than trying to establish all of the milestone dates at the beginning of the agreements.

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required to provide this information to the Congress. Even if it were possible to trace this relationship in the final budget, the figure would have limited significance because sites' compliance estimates are based primarily on the expected size of the site budget. If the funding sites receive is insufficient to accomplish all of the compliance activities planned for that year, sites must decide which activities to defer to future years. In contrast, if sites receive more funding than anticipated in a particular year, they have an opportunity to increase the amount of money spent on compliance requirements.

Compliance agreements are site-specific and are not intended to provide a mechanism for DOE to use in prioritizing risks among the various sites. The agreements reflect local DOE and community priorities for addressing environmental contamination at individual sites and were not designed or developed to consider environmental risk from a DOE-wide perspective. DOE has made several attempts to develop a risk-based methodology across its sites, but has not succeeded because of problems, such as its failure to integrate any of the approaches into the decision-making process. Rather than prioritize risk across sites, DOE has attempted to provide a relatively stable amount of funding at each site from year to year and generally allow local DOE managers and the community to determine the priorities for sequencing work at each site. However, DOE's February 2002 initiative to improve the Environmental Management program has as a central component developing risk-reduction priorities and concentrating its efforts on activities that contribute to risk reduction. DOE is considering how to best develop a risk-based cleanup strategy, but it is unclear when the strategy will be in place. Meanwhile, DOE is proceeding to select and approve sites where cleanup activities would be accelerated. To date, at least five major DOE sites with compliance agreements have signed letters of intent with their regulators outlining an agreement in principle to accelerate cleanup with increased funding.

Compliance agreements have not been a barrier to previous DOE management initiatives, but it is not clear if the compliance agreements will be used to oppose DOE's latest initiative to focus on accelerating risk reduction at the sites. This initiative could have a potentially greater impact on cleanup approaches and funding levels than prior initiatives. DOE's past management initiatives, such as the contract reform initiative, generally have not involved significant changes in cleanup approach or significant reductions in funding at individual sites. Regulators generally supported these initiatives, saying that they favor efforts to implement faster, less costly ways to reduce the environmental risks at the sites, as long as DOE's approach did not reduce funding for individual sites. DOE's

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recent initiative, however, has the potential to alter the funding balance among DOE sites. In some cases, it involves potential changes in technology or approach that would result in leaving more of the waste on site than currently planned and thus could significantly reduce cleanup costs. In other cases, it could allocate funding using a greater emphasis on risk reduction, which could shift funding among sites. Regulators told us that they would be opposed to receiving reduced funding at their individual sites and might not be willing to modify the compliance agreements to further extend schedule milestones. DOE generally did not involve the regulators in developing its reform initiative, but it is now coordinating with regulators as it develops implementation strategies for each site. Beyond the five or more letters of intent signed to date, it is too early to tell if regulators will support these changes to site cleanup programs. Furthermore, even at locations where letters of intent have been signed, many technical, regulatory, and operational decisions need to be made to implement the proposals.

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## Background

DOE is responsible for a nationwide complex of facilities created during World War II and the Cold War to research, produce, and test nuclear weapons. Much of the complex is no longer in productive use, but it contains vast quantities of radioactive waste related to the production of nuclear material, such as plutonium-contaminated sludge, and hazardous waste, such as solvents and hazardous chemicals. Since the 1980s, DOE has been planning and carrying out activities around the complex to clean up, contain, safely store, and dispose of these materials. It is a daunting challenge, involving the development of complicated technologies and costing about \$220 billion over 70 years or more. DOE has reported completing its cleanup work at 74 of the 114 sites in the complex, but those were small and the least difficult to deal with. The sites remaining to be cleaned up present enormous challenges to DOE.

DOE's cleanup program is carried out primarily under two environmental laws. Under section 120 of CERCLA, EPA must, where appropriate, evaluate hazardous waste sites at DOE's facilities to determine whether the waste sites qualify for inclusion on the National Priorities List, EPA's list of the nation's most serious hazardous waste sites. For each facility listed on the National Priorities List, section 120(e) (2) of CERCLA requires DOE to enter into an interagency agreement with EPA for the completion of all necessary remedial actions at the facility. These agreements often include the affected states as parties to the agreements. These agreements may be known as Federal Facility Agreements or Tri-Party Agreements. Under amendments to RCRA contained in section 105

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of the Federal Facility Compliance Act of 1992, DOE generally must develop site treatment plans for its mixed-waste sites.<sup>4</sup> These plans are submitted for approval to states authorized by EPA to perform regulatory responsibilities for RCRA within their borders or to EPA if the state does not have the required authority. Upon approval of the treatment plans, the state or EPA must issue an order requiring compliance with the approved plan. The agreements are generally known as Federal Facility Compliance orders.

DOE carries out its cleanup program through the Assistant Secretary for Environmental Management and in consultation with a variety of stakeholders. These include the federal EPA and state environmental agencies, county and local governmental agencies, citizen groups, advisory groups, Native American tribes, and other organizations. In most cases, DOE's regulators are parties to the compliance agreements.<sup>5</sup> Other stakeholders advocate their views through various public involvement processes including site-specific advisory boards.

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## Compliance Agreements Are of Three Main Types

Compliance agreements in effect at DOE sites can be grouped into three main types (see table 1). Agreements of the first type—those specifically required by CERCLA or by RCRA—are in effect at all of DOE's major sites. They tend to cover a relatively large number of cleanup activities and have the majority of schedule milestones that DOE must meet. By contrast, agreements that implement court-ordered settlements exist at only a few DOE sites, tend to be focused on a specific issue or concern, and have fewer associated schedule milestones. These agreements are typically between DOE and states. The remaining agreements are based on either federal or state environmental laws and address a variety of purposes, such as cleaning up spills of hazardous waste or remediating groundwater contamination, and have a wide-ranging number of milestones.

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<sup>4</sup> Mixed wastes are wastes that contain both radioactive materials subject to the Atomic Energy Act and hazardous wastes, such as degreasing solvents.

<sup>5</sup> In a few instances, other stakeholders have become signatories to compliance agreements in the settlement of ongoing litigation brought against DOE.

**Table 1: Types of DOE Compliance Agreements and Related Schedule Milestones**

Type of agreement	Number of agreements	Number of sites	Number of enforceable milestones
Agreements specifically required to implement CERCLA and RCRA requirements	29	20	5,251
Court-ordered agreements resulting from lawsuits	6	6	146
All other agreements	35	12	1,789
<b>Total</b>	<b>70</b>	<b>23<sup>a</sup></b>	<b>7,186</b>

<sup>a</sup>The numbers in this column do not add because many DOE sites have more than one agreement.

Source: GAO analysis of DOE data.

Most of the milestones DOE must meet are contained in the compliance agreements at its six largest sites—Hanford, Savannah River, Idaho Falls, Rocky Flats, Oak Ridge, and Fernald. These six DOE sites are important because they receive about two-thirds of DOE’s cleanup funding. In all, these sites account for 40 of the agreements and more than 4,200 milestones.

## Most Milestone Dates Have Been Met, but Meeting Milestones Is Not a Good Measure of Cleanup Progress

DOE reported completing about two-thirds of the 7,186 milestones contained in its compliance agreements as of December 2001. Of the 4,558 milestones completed, about 80 percent were finished by the original due date for the milestone. The remainder of the completed milestones were finished either after the original due date had passed or on a renegotiated due date, but DOE reported that the regulators considered the milestones to be met. DOE’s six largest sites reported completing a total of 2,901 of their 4,262 milestones and met the original completion date for the milestones an average of 79 percent of the time. As table 2 shows, this percentage varied from a high of 95 percent at Rocky Flats to a low of 47 percent at Savannah River. Besides the 1,334 milestones currently yet to be completed, additional milestones will be added in the future.



**Table 2: Information on Compliance Agreement Milestones at DOE's Six Largest Cleanup Sites**

Dollars in millions					
Site and state	Current EM lifecycle cleanup estimate	Number of enforceable milestones <sup>a</sup>	Number of milestones completed	Number of milestones completed on original date <sup>b</sup>	Percent of completed milestones meeting original due date
Hanford (including Office of River Protection), Washington	\$62,097	1,080	825	743	90
Savannah River, South Carolina	37,809	714	556	264	47
Idaho Falls, Idaho	27,881	428	334	312	93
Oak Ridge, Tennessee	8,456	846	513	360	70
Rocky Flats, Colorado	7,705	119	62	59	95
Fernald, Ohio	3,341	1,075	611	558	91

<sup>a</sup>The total number of milestones is not yet known because at some sites, many milestones will be added in the future as cleanup strategies change, new schedules are set, and new work is defined.

<sup>b</sup>The number of milestones completed on the original due date is the total of all milestones satisfactorily completed by the original date DOE agreed to with regulators. Those milestones completed on other than the original due date were generally not considered missed milestones because the milestone dates were either extended or renegotiated with regulators.

Source: GAO analysis of DOE data.

Although DOE has completed many of the milestones on time, for several reasons DOE's success in completing milestones on time is not a good measure of progress in cleaning up the weapons complex. Specifically:

Many of the milestones do not indicate what cleanup work has been accomplished. For example, many milestones require completing an administrative requirement that may not indicate what, if any, actual cleanup work was performed. At DOE's six largest sites, DOE officials reported that about 73 percent of the 2,901 schedule milestones completed were tied to administrative requirements, such as obtaining a permit or submitting a report.

Some agreements do not have a fixed number of milestones, and additional milestones are added over time as the scope of work is more fully defined. For example, one of Idaho Falls' compliance agreements establishes milestones for remedial activities after a record of decision<sup>6</sup>

<sup>6</sup> A record of decision is a document used to select the method of remedial action to be implemented at a site following the completion of a feasibility study or an environmental impact statement.

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has been signed for a given work area. Four records of decision associated with the agreement have not yet been approved. Their approval will increase the number of enforceable milestones required under that agreement.

Many of the remaining milestones are tied to DOE's most expensive and challenging cleanup work, much of which still lies ahead. Approximately two-thirds of the estimated \$220 billion cost of cleaning up DOE sites will be incurred after 2006. DOE has reported that the remaining cleanup activities present enormous technical and management challenges, and considerable uncertainties exist over the final cost and time frame for completing the cleanup.

Even though schedule milestones are of questionable value as a measure of cleanup progress, the milestones do help regulators track DOE's activities. Regulators at the four sites we visited said that the compliance agreements they oversee and the milestones associated with those agreements provide a way to bring DOE into compliance with existing environmental laws and regulations. They said the agreements also help to integrate the requirements under various federal laws and allow regulators to track annual progress against DOE's milestone commitments.

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### Regulators' Flexible Approach Results in Renegotiated Milestones and Few Penalties

Regulators have generally been flexible in agreeing with DOE to change milestone dates when the original milestone could not be met. DOE received approval to change milestone deadlines in over 93 percent of the 1,413 requests made to regulators. Only 3 percent of DOE's requests were denied. Regulators at the four sites we visited told us they prefer to be flexible with DOE on accomplishing an agreement's cleanup goals. For example, they generally expressed willingness to work with DOE to extend milestone deadlines when a problem arises due to technology limitations or engineering problems. Because regulators have been so willing to adjust milestones, DOE officials reported missing a total of only 48 milestones, or about 1 percent of milestones that have been completed.

Even in those few instances where DOE missed milestone deadlines and regulators were unwilling to negotiate revised dates, regulators have infrequently applied penalties available under the compliance agreements. DOE reported that regulators have taken enforcement actions only 13 times since 1988 when DOE failed to meet milestone deadlines. These enforcement actions resulted in DOE paying about \$1.8 million in monetary penalties, as shown in table 3.

**Table 3. Number of Compliance Agreement Missed Milestones and Monetary Penalties Paid at DOE Sites**

Site and state	Milestones missed	Enforcement actions taken	Monetary penalty paid
Hanford, Washington	13	2	\$100,000 <sup>a</sup>
Idaho Falls, Idaho	4	2	970,000 <sup>b</sup>
Portsmouth, Ohio	2	2	292,000
Fernald, Ohio	7	3	250,000
Oak Ridge, Tennessee	2	2	100,000
Rocky Flats, Colorado	2	2	100,000
<b>Total</b>	<b>30</b>	<b>13</b>	<b>\$1,812,000</b>

<sup>a</sup>Hanford regulators recently levied a monetary penalty of \$5,000 for the first week and \$10,000 for each additional week that DOE missed a July 31, 2001, milestone to start construction of a waste treatment facility. However, regulators said they will cancel the penalty if DOE meets a new milestone date set for the end of this year. Therefore, this monetary penalty is not included in table 3.

<sup>b</sup>In April 2002, DOE agreed to pay \$800,000 for missing a milestone requiring submission of scope of work documents for one of the site's waste burial sites. As of the time of this report, DOE had not yet paid the penalty. Therefore, this monetary penalty is not included in table 3.

Source: GAO analysis of DOE data.

In addition to or instead of regulators assessing monetary penalties, several DOE sites agreed to other arrangements valued at about \$4 million. For example, for missing a milestone to open a transuranic<sup>7</sup> waste storage facility at the Rocky Flats site, the site agreed to provide a \$40,000 grant to a local emergency planning committee to support a chemical-safety-in-schools program. At the Oak Ridge site, because of delays in operating a mixed waste incinerator, site officials agreed to move up the completion date for \$1.4 million worth of cleanup work already scheduled. Also, at three sites—Paducah, Kentucky; Lawrence Livermore Main Site, California; and Nevada Test Site, Nevada—the regulators either did not impose penalties for missed milestones or the issue was still under discussion with DOE at the time of our review.

<sup>7</sup> Transuranic waste contains man-made radioactive elements with atomic numbers higher than that of uranium, such as plutonium.

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## DOE's Budget Request Does Not Identify the Funding Needed to Meet Compliance Requirements

The President's budget submitted to the Congress does not provide information on the amount of funding requested for DOE's compliance requirements. DOE sites prepare budget estimates that include compliance cost estimates and submit them for consideration by DOE headquarters. However, DOE headquarters officials evaluate individual site estimates and combine them into an overall DOE-wide budget, taking into account broader considerations and other priorities that it must address as part of the give-and-take of the budget process. As a result, the final budget sent to the Congress has summary information on DOE's programs and activities, but it provides no information on the portion of the budget needed to fund compliance requirements. DOE is not required to develop or present this information to the Congress. The President's budget typically states that the DOE funding requested is sufficient to substantially comply with compliance agreements, but it does not develop or disclose the total amount of funding needed for compliance. Officials at DOE headquarters told us that budget guidance from the Office of Management and Budget does not require DOE to develop or present information on the cost of meeting compliance requirements, and they said doing so for the thousands of milestones DOE must meet would be unnecessarily burdensome. They said their approach has been to allocate funds appropriated by the Congress and make it the sites' responsibility to use the funds in a way that meets the compliance agreement milestones established at the site level.

Individual DOE sites develop information on the estimated cost of meeting compliance agreements, but the annual estimates are a flexible number. Sites develop these estimates because many of the compliance agreements require DOE to request sufficient funding each year to meet all of the requirements in the agreements. Also, DOE must respond to Executive Order 12088, which directs executive agencies to ensure that they request sufficient funds to comply with pollution control standards. Accordingly, each year DOE's sites develop budget estimates that also identify the amount needed to meet compliance requirements. The sites' process in developing these compliance estimates shows that a compliance estimate is a flexible number. For example, two budget estimates typically completed by the sites each year are the "full requirements" estimate and the "target" estimate. The full requirements estimate identifies how much money a site would need to accomplish its work in what site officials consider to be the most desirable fashion. The target estimate reflects a budget strategy based primarily on the amount of funding the site received the previous year and is considered a more realistic estimate of the funding a site can expect to receive. For each of these budget estimates, DOE sites also include an estimate of their compliance costs. As a result of

this process, DOE sites usually have at least two different estimates of their compliance costs for the same budget year. Table 4 shows how the compliance cost estimates related to compliance agreements changed under different budget scenarios at four DOE sites.

**Table 4: Cost of Meeting Compliance Requirements under Two Different Budget Scenarios at Four DOE Sites, Fiscal Year 2002**

Dollars in millions				
DOE Site	Full requirements estimate		Target estimate	
	Compliance <sup>a</sup>	Total	Compliance <sup>a</sup>	Total
Hanford				
Richland	\$429.6	<b>\$958.4</b>	\$265.5	<b>\$721.8</b>
River Protection	987.1	<b>1,149.7</b>	685.2	<b>838.0</b>
Idaho Falls	366.6	<b>643.1</b>	313.6	<b>540.6</b>
Savannah River	294.5	<b>1,411.1</b>	288.4	<b>1,268.5</b>
Oak Ridge	424.6	<b>741.7</b>	405.5	<b>668.3</b>

<sup>a</sup>The compliance amounts in this column show only the funding associated with meeting requirements contained in compliance agreements. It does not include (1) estimates of the funding needed to comply with requirements in federal, state, or local environmental laws and regulations that are not part of a compliance agreement or (2) the funding DOE estimates is necessary to maintain minimal site infrastructure, security, and safety requirements.

Source: GAO analysis of DOE data.

The multiple estimates of compliance costs developed by individual DOE sites indicate that DOE sites have alternative ways of achieving compliance in any given year. DOE site officials said that how much DOE plans to spend on compliance activities each year varies depending on the total amount of money available. Because many of the compliance milestones are due in the future, sites estimate how much compliance activity is needed each year to meet the future milestones. If sites anticipate that less money will be available, they must decide what compliance activities are critical for that year and defer work on some longer-term milestones to future years. On the other hand, if more money is available, sites have an opportunity to increase spending on compliance activities earlier than absolutely necessary.

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## Compliance Agreements Are Site Specific and Do Not Allow for Managing Risks Across DOE Sites

DOE's compliance agreements focus on environmental issues at specific sites and do not include information on the risks being addressed. As a result, they do not provide a means of setting priorities for risks among sites or a basis for decision-making across all DOE sites. Risk is only one of several factors considered in setting the milestones in compliance agreements. Other factors include the preferences and concerns of local stakeholders, business and technical risk, the cost associated with maintaining old facilities, and the desire to achieve demonstrable progress on cleanup. The schedules for when and in what sequence to perform the cleanup work reflect local DOE and stakeholder views on these and other factors and may not reflect the level of risk. For example, regulators at DOE's Savannah River site told us that they were primarily concerned that DOE maintain a certain level of effort and they expected DOE to schedule cleanup activities to most efficiently clean up the site. DOE developed a decision model to determine how to allocate its cleanup dollars at Savannah River to achieve this efficiency. A group of outside reviewers assessing the system at the request of site management concluded that the model was so strongly weighted to efficiency that it was unlikely that serious risks to human health or the environment could alter the sequencing of work. DOE officials said they revised the model so that serious risks receive greater emphasis.

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## DOE's Attempts to Develop a Risk-Based Approach Have Not Been Successful

In response to concerns expressed by the Congress and others about the effectiveness of the cleanup program, DOE has made several attempts to develop a national, risk-based approach to cleanup, but has not succeeded. For example, in 1999, DOE pilot-tested the use of site risk profiles at 10 DOE offices. The profiles were intended to provide risk information about the sites, make effective use of existing data at the sites, and incorporate stakeholder input. However, reviewers found that the site profiles failed to adequately address environmental or worker risks because the risks were not consistently or adequately documented. In 2001, DOE eliminated a support group responsible for assisting the sites with this effort, and the risk profiles are generally no longer being developed or used.

A 1999 DOE-funded study to evaluate its efforts to establish greater use of risk-based decision-making concluded that none of the attempts had been successful.<sup>8</sup> Common problems identified by the study included poor

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<sup>8</sup> Consortium for Risk Evaluation with Stakeholder Participation, *Peer Review of the U.S. Department of Energy's Use of Risk in Its Prioritization Process*, (New Brunswick, NJ: Dec. 15, 1999).

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documentation of risks and inconsistent scoring of risks between sites. The study reported that factors contributing to the failure of these efforts included a lack of consistent vision about how to use risk to establish work priorities, the lack of confidence in the results by DOE personnel, the unacceptability of the approaches to stakeholders at the sites, and DOE's overall failure to integrate any of the approaches into the decision-making process. However, the study concluded that the use of risk as a criterion for cleanup decision-making across DOE's sites not only was essential, it was also feasible and practical, given an appropriate level of commitment and effort by DOE.

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### Accelerated Schedules in DOE Initiative Signal the Need to Develop a Risk-Based Approach

DOE plans to shift its cleanup program to place greater focus on rapid reduction of environmental risk, signaling yet again the need for a national risk-based approach to cleanup. Without a national, risk-based approach to cleanup in place, DOE's budget strategy had been to provide stable funding for individual sites and to allow the sites to determine what they needed most to accomplish. However, in a February 2002 report, DOE described numerous problems with the environmental management program and recommended a number of corrective actions.<sup>9</sup> The report concluded that, among other things, the cleanup program was not based on a comprehensive, coherent, technically supported risk prioritization; it was not focused on accelerating risk reduction; and it was not addressing the challenges of uncontrolled cost and schedule growth. The report recommended that DOE, in consultation with its regulators, move to a national strategy for cleanup. In addition, the report noted that the compliance agreements have failed to achieve the expected risk reduction and have sometimes not focused on the highest risk. The report recommended that DOE develop specific proposals and present them to the states and EPA with accelerated risk reduction as the goal.

DOE's new initiative provides additional funds for cleanup reform and is designed to serve as an incentive to sites and regulators to identify accelerated risk reduction and cleanup approaches. DOE's fiscal year 2003 budget request includes a request for \$800 million for this purpose. Moreover, the Administration has agreed to support up to an additional \$300 million if needed for cleanup reforms. The set-aside would come from a reduction in individual site funding levels and an increase in the

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<sup>9</sup> U.S. Department of Energy, *A Review of the Environmental Management Program*, (Washington, D.C.: Feb. 4, 2002).

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overall funding level for the cleanup program. The money would be made available to sites that reach agreements with federal and state regulators on accelerated cleanup approaches. Sites that do not develop accelerated programs would not be eligible for the additional funds. As a result, sites that do not participate could receive less funding than in past years.

To date, at least five major DOE sites with compliance agreements have signed letters of intent with their regulators outlining an agreement in principle to accelerate cleanup—Hanford, Idaho, Los Alamos, Oak Ridge, and Nevada Test Site. However, the letters of intent generally also include a provision that the letters do not modify the obligations DOE agreed to in the underlying compliance agreements. At Hanford, DOE and the regulators signed a letter of intent in March 2002 to accelerate cleanup at the site by 35 years or more. DOE and the regulators agreed to consider the greatest risks first as a principle in setting cleanup priorities. They also agreed to consider, as targets of opportunity for accelerated risk reduction, 42 potential areas identified in a recent study at the site. While accelerating the cleanup may hold promise, Hanford officials acknowledged that many technical, regulatory, and operational decisions need to be made to actually implement the proposals in the new approach.

DOE is proceeding with the selection and approval of accelerated programs at the sites, as well as identifying the funding for those accelerated programs. At the same time, DOE is considering how best to develop a risk-based cleanup strategy. DOE's Assistant Secretary for Environmental Management said that in developing the risk-based approach, DOE should use available technical information, existing reports, DOE's own knowledge, and common sense to make risk-based decisions. Because DOE's approach to risk assessment is under development, it is unclear whether DOE will be able to overcome the barriers encountered during past efforts to formalize a risk-assessment process. In the interim, DOE headquarters review teams were evaluating the activities at each site and were qualitatively incorporating risk into those evaluations.



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## Compliance Agreements Were Not a Barrier to Past Management Improvements, but Impact on February 2002 Initiative Is Unclear

Compliance agreements have not been a barrier to previous DOE management improvements, but it is not clear if the agreements will be used to oppose proposed changes stemming from the February 2002 initiative. DOE has implemented or tried to implement a number of management initiatives in recent years to improve its performance and address uncontrolled cost and schedule growth. For example, in 1994, it launched its contract reform initiative; in 1995, it established its privatization initiative;<sup>10</sup> and in 1998, it implemented its accelerated path-to-closure initiative. These initiatives affected how DOE approached the cleanup work, the relationship DOE had with its contractors, and, in some cases, the schedule for completing the work. Based on our review of past evaluations of these initiatives and discussions with DOE officials and regulators at DOE sites, it appears that DOE proceeded with these initiatives without significant resistance or constraints as a result of the compliance agreements.

Because DOE's cleanup reform initiative is in its early stages, and site-specific strategies are only beginning to emerge, it is unclear how the site compliance agreements will affect implementation of DOE's latest cleanup reforms. For example, it is not yet known how many sites will participate in DOE's initiative and how many other sites will encounter cleanup delays because of reduced funding. However, early indications suggest caution. Parties to the agreements at the sites we visited were supportive of DOE's overall efforts to improve management of the cleanup program, but expressed some concerns about proposals stemming from the February 2002 review of the program. They said that they welcome DOE's efforts to accelerate cleanup and focus attention on the more serious environmental risks because such initiatives are consistent with the regulators' overall goals of reducing risks to human health and the environment. Most regulators added, however, that DOE generally had not consulted with them in developing its reform initiative and they were concerned about being excluded from the process. Furthermore, they said DOE's initiative lacked specific details and they had numerous questions about the criteria DOE will use to select sites and the process it will follow at those sites to develop an implementation plan to accelerate cleanup and modify cleanup approaches.

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<sup>10</sup> DOE's privatization was intended to reduce the cost of cleanup by attracting "best in class" contractors with fixed price contracts that required contractors to design, finance, build, own, and operate treatment facilities and to receive payments only for successfully treating DOE's wastes.

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Most regulators said they would not view as favorable any attempt by DOE to avoid appropriate waste treatment activities or significantly delay treatment by reducing funding available to sites. In such a case, these regulators are likely to oppose DOE's initiative. They told us that they most likely would not be willing to renegotiate milestones in the compliance agreements if doing so would lead to delays in the cleanup program at their sites. In addition, these regulators said that if DOE misses the milestones after reducing the funding at individual sites, they would enforce the penalty provisions in the compliance agreements.

The effect of compliance agreements on other aspects of DOE's initiative, especially its proposal to reclassify waste into different risk categories to increase disposal options, is also unclear. Some of the proposed changes in waste treatment would signal major changes in DOE assumptions about acceptable waste treatment and disposal options. For example, one change would eliminate the need to vitrify at least 75 percent of the high-level waste, which could result in disposing of more of the waste at DOE sites. In addition, DOE is considering the possibility of reclassifying much of its high-level waste as low-level mixed waste or transuranic waste based on the risk attributable to its actual composition.<sup>11</sup> However, at all four sites we visited, regulators said that it is unclear how DOE's proposed initiatives will be implemented, what technologies will be considered, and whether the changes will result in reduced cost and accelerated cleanup while adequately protecting human health and the environment.

DOE generally did not seek input from site regulators or other stakeholders when developing its latest initiative. DOE's review team leader said that when the review team visited individual sites, the team had not formulated its conclusions or recommendations and so did not seek regulators' views. Furthermore, the team leader said that, during the review, DOE was holding internal discussions about improving ineffective cleanup processes, such as contracting procedures. To include regulators on the review team during these discussions, according to the team leader, could have created the impression that the criticism of DOE processes came from the regulators rather than from DOE and contractor staff. According to the Associate Deputy Assistant Secretary for Planning and Budget, since the review team's proposals were made public in February,

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<sup>11</sup> Currently, DOE classifies this high-level waste based on the treatment process that created the waste.

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DOE has held discussions with regulators at all sites and headquarters about implementing the proposals.

In summary, Mr. Chairman, DOE faces two main challenges in going forward with its initiative. The first is following through on its plan to develop and implement a risk-based method to prioritize its various cleanup activities. Given past failed attempts to implement a risk-based approach to cleanup, management leadership and resolve will be needed to overcome the barriers encountered in past attempts. The second challenge for DOE is following through on its plan to involve regulators in site implementation plans. DOE generally did not involve states and regulatory agencies in the development of its management initiative. Regulators have expressed concerns about the lack of specifics in the initiative, how implementation plans will be developed at individual sites, and about proposals that may delay or significantly alter cleanup strategies. Addressing both of these challenges will be important to better ensure that DOE's latest management initiative will achieve the desired results of accelerating risk reduction and reducing cleanup costs.

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Thank you, Mr. Chairman and Members of the Subcommittee. This concludes my testimony. I will be happy to respond to any questions that you may have.

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# GAO Contact and Staff Acknowledgment

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For future contacts regarding this testimony, please contact (Ms.) Gary Jones at (202) 512-3841. Chris Abraham, Doreen Feldman, Rich Johnson, Nancy Kintner-Meyer, Tom Perry, Ilene Pollack, Stan Stenersen, and Bill Swick made key contributions to this report.

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